bio-protocol Preprint

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Purification of DNA Origami Nanostructures

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Updated date: May 23, 2023

An abbreviated version of this protocol was published in ACS Nano in Mar 2021

Cryo-Electron Microscopy and Mass Analysis of Oligolysine-Coated DNA Nanostructures

DOI: 10.1021/acsnano.0c10137

Detailed protocol

Ultrafiltration using Amicon Ultra 0.5 mL Ultracel filters (50k)

1. Centrifuge 0.5 ml of Fob5 buffer (5 mM TRIS, 1 mM EDTA, 5 mM NaCl, and 5 mM MgCl2) through a filter for 3 min at 25°C, at 10000 g. Discard "flow-through".
2. Add 0.1 - 0.2 ml of folded object sample, fill filter up to 0.5 ml with Fob5 and centrifuge for 3 min at 25°C, at 10000 g. Discard "flow-through".
3. Add 0.45 ml of Fob5 and centrifuge for 3 min at 25°C, at 10000 g. Discard flow through.
4. Repeat step 3, 2 more times.
5. Retrieve sample by placing filter inset upside down into a new tube, centrifuge for 3 min at 25°C, at 10000 g.

How to cite:(Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used)

1. Stömmer, P. and Dietz, H. (2023). Purification of DNA Origami Nanostructures. Bio-protocol Preprint. bio-protocol.org/prep2313.
2. Bertosin, E., Stömmer, P., Feigl, E., Wenig, M., Honemann, M. N. and Dietz, H.(2021). Cryo-Electron Microscopy and Mass Analysis of Oligolysine-Coated DNA Nanostructures. ACS Nano 15(6). DOI: 10.1021/acsnano.0c10137